

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

AECOM
PO Box 5604
Glen Allen VA 23058-5604

June 17, 2015

Project: Westlake

Submittal Date: 06/12/2015

Group Number: 1568590

SDG: KWM31

PO Number: 57672ACM

Release Number: 60335556

State of Sample Origin: TX

Client Sample Description

Field Blank Wipe

Hammer Wipe

Ex-Track Wipe

Lancaster Labs (LL) #

7925950

7925951

7925952

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>.

ELECTRONIC COPY TO AECOM

Attn: Kurt Webber

Respectfully Submitted,

Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

Sample Description: Field Blank Wipe
Westlake, TX

LL Sample # WP 7925950
LL Group # 1568590
Account # 11738

Project Name: Westlake

Collected: 06/11/2015 13:44 by KW

AECOM

PO Box 5604

Submitted: 06/12/2015 09:20

Glen Allen VA 23058-5604

Reported: 06/17/2015 15:57

WTFB- SDG#: KWM31-01FB

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/wipe	ug/wipe	ug/wipe	
10906	PCB-1016	12674-11-2	N.D.	0.50	0.10	1
10906	PCB-1221	11104-28-2	N.D.	0.50	0.14	1
10906	PCB-1232	11141-16-5	N.D.	0.50	0.24	1
10906	PCB-1242	53469-21-9	N.D.	0.50	0.10	1
10906	PCB-1248	12672-29-6	N.D.	0.50	0.10	1
10906	PCB-1254	11097-69-1	N.D.	0.50	0.10	1
10906	PCB-1260	11096-82-5	N.D.	0.50	0.15	1

General Sample Comments

State of Texas Lab Certification No. T104704194-14-19

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10906	PCBs in Wipes (Microwave)	SW-846 8082	1	151670007A	06/17/2015 11:28	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	151670007A	06/16/2015 15:30	Kelli M Barto	1

*=This limit was used in the evaluation of the final result

Sample Description: Hammer Wipe
Westlake, TX

LL Sample # WP 7925951
LL Group # 1568590
Account # 11738

Project Name: Westlake

Collected: 06/11/2015 13:48 by KW

AECOM

PO Box 5604

Submitted: 06/12/2015 09:20

Glen Allen VA 23058-5604

Reported: 06/17/2015 15:57

WTHAM SDG#: KWM31-02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/wipe	ug/wipe	ug/wipe	
10906	PCB-1016	12674-11-2	N.D.	0.50	0.10	1
10906	PCB-1221	11104-28-2	N.D.	0.50	0.14	1
10906	PCB-1232	11141-16-5	N.D.	0.50	0.24	1
10906	PCB-1242	53469-21-9	N.D.	0.50	0.10	1
10906	PCB-1248	12672-29-6	N.D.	0.50	0.10	1
10906	PCB-1254	11097-69-1	N.D.	0.50	0.10	1
10906	PCB-1260	11096-82-5	N.D.	0.50	0.15	1

General Sample Comments

State of Texas Lab Certification No. T104704194-14-19

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10906	PCBs in Wipes (Microwave)	SW-846 8082	1	151670007A	06/17/2015 11:40	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	151670007A	06/16/2015 15:30	Kelli M Barto	1

*=This limit was used in the evaluation of the final result

Sample Description: Ex-Track Wipe
Westlake, TX

LL Sample # WP 7925952
LL Group # 1568590
Account # 11738

Project Name: Westlake

Collected: 06/11/2015 13:53 by KW

AECOM

Submitted: 06/12/2015 09:20

PO Box 5604

Reported: 06/17/2015 15:57

Glen Allen VA 23058-5604

WTETR SDG#: KWM31-03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Limit of Quantitation*	As Received Method Detection Limit	Dilution Factor
Pesticides/PCBs		SW-846 8082	ug/wipe	ug/wipe	ug/wipe	
10906	PCB-1016	12674-11-2	N.D.	0.50	0.10	1
10906	PCB-1221	11104-28-2	N.D.	0.50	0.14	1
10906	PCB-1232	11141-16-5	N.D.	0.50	0.24	1
10906	PCB-1242	53469-21-9	N.D.	0.50	0.10	1
10906	PCB-1248	12672-29-6	N.D.	0.50	0.10	1
10906	PCB-1254	11097-69-1	N.D.	0.50	0.10	1
10906	PCB-1260	11096-82-5	N.D.	0.50	0.15	1

General Sample Comments

State of Texas Lab Certification No. T104704194-14-19

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10906	PCBs in Wipes (Microwave)	SW-846 8082	1	151670007A	06/17/2015 11:51	Monica M Souders	1
10497	PCB Microwave Soil Extraction	SW-846 3546	1	151670007A	06/16/2015 15:30	Kelli M Barto	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: AECOM

Group Number: 1568590

Reported: 06/17/2015 15:57

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank LOQ**</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 151670007A	Sample number(s): 7925950-7925952								
PCB-1016	N.D.	0.50	0.10	ug/wipe	102	103	64-114	1	100
PCB-1221	N.D.	0.50	0.14	ug/wipe					
PCB-1232	N.D.	0.50	0.24	ug/wipe					
PCB-1242	N.D.	0.50	0.10	ug/wipe					
PCB-1248	N.D.	0.50	0.10	ug/wipe					
PCB-1254	N.D.	0.50	0.10	ug/wipe					
PCB-1260	N.D.	0.50	0.15	ug/wipe	105	102	68-115	3	100

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PCBs in Wipes (Microwave)

Batch number: 151670007A

	<u>Tetrachloro-m-xylene</u>	<u>Decachlorobiphenyl</u>
7925950	99	86
7925951	101	84
7925952	102	87
Blank	103	88
LCS	105	85
LCSD	106	80
Limits:	54-131	73-135

*- Outside of specification

** - This limit was used in the evaluation of the final result for the blank

(1) The result for one or both determinations was less than five times the LOQ.

(2) The unspiked result was more than four times the spike added.

[illegible]

Acct. # 11738

For Eurofins Lancaster Laboratories Environmental use only

Group # 568540

Sample # 7925950-52

cap # 1308510 sample # 716
Instructions on reverse side correspond with circled numbers

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300

1568590

Katherine Klinefelter

From: Katherine Klinefelter
Sent: Friday, June 12, 2015 12:34 PM
To: 'Webber, Kurt'
Subject: RE: lab shipment to be received on June 12, 2015 - 48 hr TAT

Hi Kurt,

To follow up my VM message to you –

Soils were received 6/10, 6/11 and 6/12.

Wipes were received 6/12. Wipes have been placed on hold pending receipt of guidance from you that they are to be analyzed.

Thanks,
Kathy
717-556-7256

From: Webber, Kurt [<mailto:Kurt.Webber@aecom.com>]
Sent: Thursday, June 11, 2015 5:19 PM
To: Katherine Klinefelter
Subject: lab shipment to be received on June 12, 2015 - 48 hr TAT

Kathy,

You will be receiving one cooler with 6 soil samples for PCB analysis and 3 wipe samples for PCB analysis – separate chains of custody.

The soil samples request a 48 hour TAT, but the wipe samples are to be placed on hold pending results from yesterday's samples. I did not received acknowledgment that you received them today.

Kurt Webber P.G.
Project Manager - Environment
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1568590

Katherine Klinefelter

From: Webber, Kurt <Kurt.Webber@aecom.com>
Sent: Monday, June 15, 2015 2:51 PM
To: Katherine Klinefelter
Subject: RE: 1568590-Westlake-06/12/2015 9:20:00 Acknowledgement

Kathy, please run these samples on a 48-hr rush.

Kurt Webber P.G.
Project Manager - Environment
D 972.735.7067 C 817.773.6921
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From: Katherine Klinefelter [<mailto:KatherineKlinefelter@eurofinsus.com>]
Sent: Monday, June 15, 2015 1:19 PM
To: Webber, Kurt
Subject: RE: 1568590-Westlake-06/12/2015 9:20:00 Acknowledgement

Thanks Kurt. Will do.

From: Webber, Kurt [<mailto:Kurt.Webber@aecom.com>]
Sent: Monday, June 15, 2015 2:17 PM
To: Katherine Klinefelter
Subject: FW: 1568590-Westlake-06/12/2015 9:20:00 Acknowledgement

Kathy,

Please run these samples.

Thank you.

Kurt Webber P.G.
Project Manager - Environment
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kurt.webber@aecom.com

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From: USLAN-PXAdmin [<mailto:USLAN-PXAdmin@lancasterlabs.com>]
Sent: Monday, June 15, 2015 11:10 AM
To: Webber, Kurt
Subject: 1568590-Westlake-06/12/2015 9:20:00 Acknowledgement

The following is an acknowledgement of the receipt of samples by Lancaster Laboratories. Please review this acknowledgement and contact your Client Service Representative if you have concerns.

Client: AECOM

Delivery and Receipt Information

Delivery Method:	<u>Fed Ex</u>	Arrival Timestamp:	<u>06/12/2015 9:20</u>
Number of Packages:	<u>1</u>	Number of Projects:	<u>1</u>
State/Province of Origin:	<u>TX</u>		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace \geq 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Kristin Zeigler (2123) at 10:12 on 06/12/2015

Samples Chilled Details*Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.*

<u>Cooler #</u>	<u>Thermometer ID</u>	<u>Corrected Temp</u>	<u>Therm. Type</u>	<u>Ice Type</u>	<u>Ice Present?</u>	<u>Ice Container</u>	<u>Elevated Temp?</u>
1	DT146	0.4	DT	Wet	Y	Bagged	N

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	BMQL	Below Minimum Quantitation Level
N.D.	none detected	MPN	Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
C	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
µg	microgram(s)	mg	milligram(s)
mL	milliliter(s)	L	liter(s)
m3	cubic meter(s)	µL	microliter(s)
		pg/L	picogram/liter
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- B - Analyte detected in the blank
- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and the $<$ Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, ISO17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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